ABSTRACT OF THE DISCLOSURE

[0055] A method for detecting an atypical occurrence, such as a public health crisis, within a given region in a telecommunications network. The method includes assigning a given weight to each of a plurality of destination addresses within the region according to a weighting system, collecting call data for the region for a given period of time, where the call data includes destination addresses and corresponding call occurrence times, developing a weighted call traffic pattern based upon the call data, and using the weighted call traffic pattern to detect an atypical occurrence within the region.